

Work Order ID 153783

153783

Page 1

Friday, November 25, 2016 7:43:02 AM

Rush.

Item ID: 647.1611

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Wiper Deflector, Aft

Start Date: 12/2/2016 Start Qty: 6.00

6

Cust Item ID:

Required Date: 12/9/2016 Req'd Qty: 6.00

6

Customer:

Reference:

DAS
21
9-89

Approvals:

Process Plan:

Date: NOV 20 2016

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.1600	A

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut Blanks at 6.00"

6 0 DAS 20 9-89 16-12-17

110

0.16

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.55

HAAS CNC vertical machine #1

1-Machine per folio FB287

DWG REV: A

FOLIO REV: AA

2- deburr and break all sharp edges

6 0 DAS 20 9-89 16-12-17

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : ☐			
Misidentified ☐	☐	Past Due ☐	☐				

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Page 2

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Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.01

Quality Control

6

0

DAS
20 16-12-17
9-89

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.02

Quality Control

B.D 16-12-19

6

0

DAS
08
9-89

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

179.99

Outsource process - Anodize

Issue P/O to ATG :

34684

1- Black Anodize as per Dwg 647.1600

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Comformity is required

6

DEC 19 2016

DAS
13
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By _____					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 153783

Friday, November 25, 2016 7:43:02 AM

153783

Page 3

Item ID: 647.1611

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Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Memo

0.02

Packaging

6x 8/16-12-21

155

QC5- Inspect part completeness to step on W/O

0.00

155

QC

Quality Control

Memo

0.02

QC6
PD① 16-12-21
point thickness 1.7mm.DAS
9-89

180

Identify as per dwg & Stock Location: ccc 091 0.00***180***

Packaging

Packaging

Memo

0.01

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

6
DAS
6
9-89

DEC 21 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order ID 153783

Friday, November 25, 2016 7:43:02 AM

153783

Page 4

Item ID: 647.1611

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Wiper Deflector, Aft

Start Date: 12/2/2016 Start Qty: 6.00

6

Cust Item ID:

Required Date: 12/9/2016 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00					DAS 21 9-89	DEC 2 1 2016	
190									
QC	Memo	0.10							
Quality Control							DAS 21 9-89	DEC 2 1 2016	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By 					
				Lead hand / Supervisor Approval Verification 					
				QC / QA Coordinator Approval 					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : 			
Misidentified ☐		Past Due ☐					

Picklist Print

Friday, November 25, 2016 7:43:01 AM

Work Order ID: 153783

153783

Parent Item: 647.1611

647 1611

Parent Item Name: Wiper Deflector, Aft

Start Date: 12/2/2016

Required Date: 12/9/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV A NEW ISSUE VERIFIED BY DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

647.1611E

Manufactured No

f

123.0000

3.157895

DAS

647 1611F

3.333'

20 16-12-17
9-89

Wiper Deflector

Location

Loc Qty

Loc Code

MAT034

123

91744

123

3.333'

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
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Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

DART AEROSPACE LTD	Work Order:	153783
Description: Wiper Deflector, Aft	Part Number:	647.1611
Inspection Dwg: 647.1600 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments	
0.32	+/-0.010	.323	✓		Height gauge 		
5.77	+/-0.010	5.771	✓				
2.42	+/-0.010	2.417	✓				
0.36	+/-0.010	.364	✓				
1.56	+/-0.010	1.553	✓				
0.404	+/-0.005	.403	✓				
3.967	+/-0.002	3.966	✓				
Ø0.433 x 0.146 DP	+/-0.005 x +/-0.005	.437x.145	✓		SLIO	Vern	
Ø0.217	+0.005/-0.001	.218	✓		"		
0.365	+/-0.005	.369	✓				
1.385	+/-0.002	1.385	✓				
2.16	+/-0.010	2.164	✓				
0.35	+/-0.010	.356	✓				
0.20	+/-0.010	.200	✓				
0.944	+/-0.005	.942	✓				
0.606	+/-0.002	.606	✓				
0.381	+/-0.002	.381	✓				
3.31	+/-0.010	3.314	✓				
0.713	+/-0.002	.713	✓				
1.445	+/-0.002	1.445	✓				
0.54	+/-0.010	.536	✓				
Ø0.15 x 62.7°	+/-0.010 x +/-0.5°	.150x62.7°	✓		SLIO	Vern	
Ø0.170	+0.005/-0.001	.171	✓		"		
R0.20	+/-0.010	.200	✓		Rad gauge		
4.88	+/-0.010	4.883	✓		↓		
3.89	+/-0.010	3.897	✓				

Measured by:	20 9-89	Audited by:	J.A. DAS 08 9-89	Preliminary Approval:	
Date:	16-12-17	Date:	16-12-19	Date:	

Rev	Date	Change	Revised by	Approved
A	14.06.05	New Issue	KJ	

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 04229				SHEET 1 OF 1	
	DWG NO. 647.1600	REV: A	PREPARED BY J. SOTO	DATE: 11/11/2013	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: WIPER DEFLECTOR ASSY					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF. NEXT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED F/N 8				ECR: 13-032	

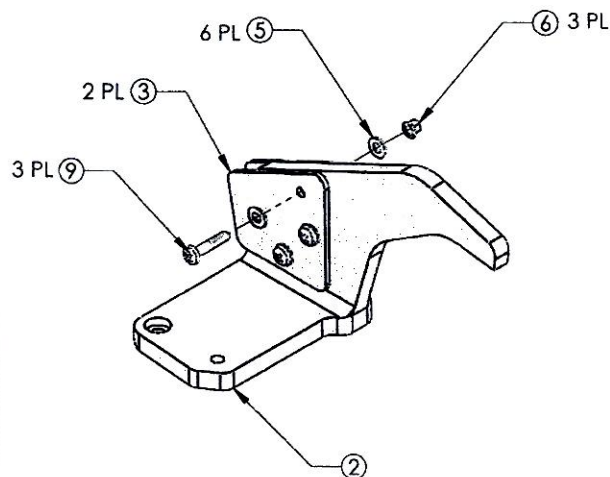
SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 153783 MWS
 16-11-29

8	R	601.2207	8		NUTPLATE RIVET	CCR265SS3-3	
F/N	TC	PART NUMBER	.1602	.1601	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

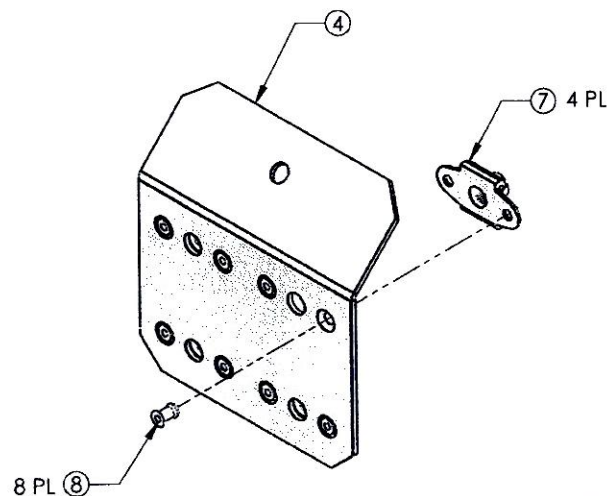
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NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 AMS-QQ-A-250/12
- 2 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4
- 3 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N
4. DEBURR AND BREAK ALL SHARP EDGES
5. IDENTIFY IAW MPP-120



647.1601 SHOWN EXPLODED



647.1602 SHOWN EXPLODED

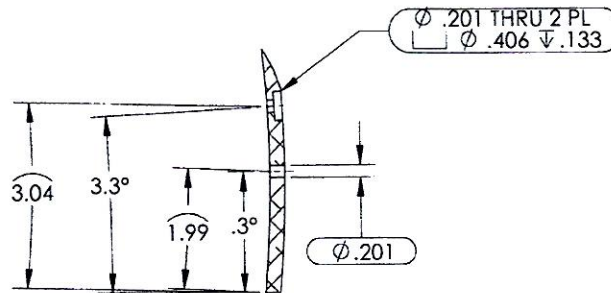
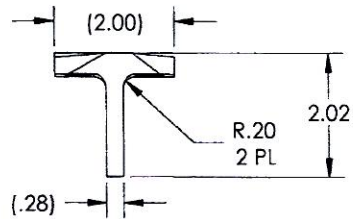
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
1	LAST PROTOTYPE REVISION PER		N/C
N/C	INITIAL RELEASE	06/10/09	P. BRAVO
A	INCORPORATED ECN 04229	08/29/13	P. BRAVO

UNINCORPORATED ECN(s)

04229

QTY	3	9	601.2989	SCREW	MS27039-0812	
	8	8	601.2980	NUTPLATE RIVET	CCP26455-3-04	
	4	7	601.1900	NUTPLATE	MS71059-3	
	3	6	601.2973	LOCKNUT	MS21042-08	
	6	5	601.2764	WASHER	NAS1149FN832P	
	1	4	647.1613	DOUBLER		3
	2	3	647.1612	SPLICE PLATE		3
	1	2	647.1611	WIPER DEFLECTOR, AFT		3
		1	647.1610	WIPER DEFLECTOR, FWD		3
	X		647.1602	DOUBLER ASSY		
	X		647.1601	WIPER DEFLECTOR ASSY, AFT		
	1602	1601	FIND #	PART #	DESCRIPTION	MAT'L SPEC.
PARTS LIST				APICAL INDUSTRIES		
NEXT ASSY (S)				2608 TEMPLE HEIGHTS DR.		
647.1300				OCEANSIDE, CA. 92056-3512 (760)724-5300		
				WIPER DEFLECTOR ASSY		
				UNLESS OTHERWISE SPECIFIED		
				DIMENSIONS ARE IN INCHES		
				FRACTIONS ARE TO BE DECIMALS		
				2 PLACE DECIMALS ± .01		
				3 PLACE DECIMALS ± .005		
				ANGLES ± .5°		
				SIZE	CAGE CODE	DWG NO
				B	07M25	647.1600
				SCALE	NONE	SHEET 1 OF 6

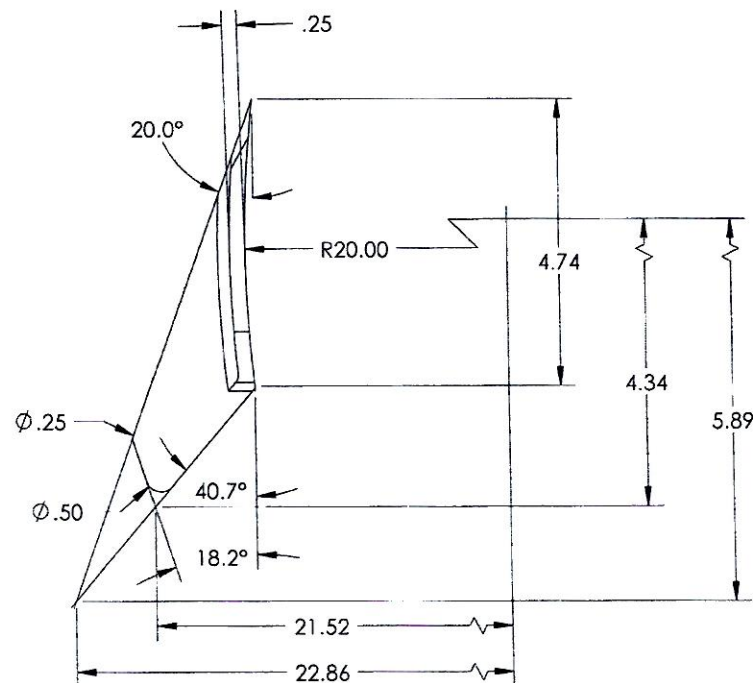
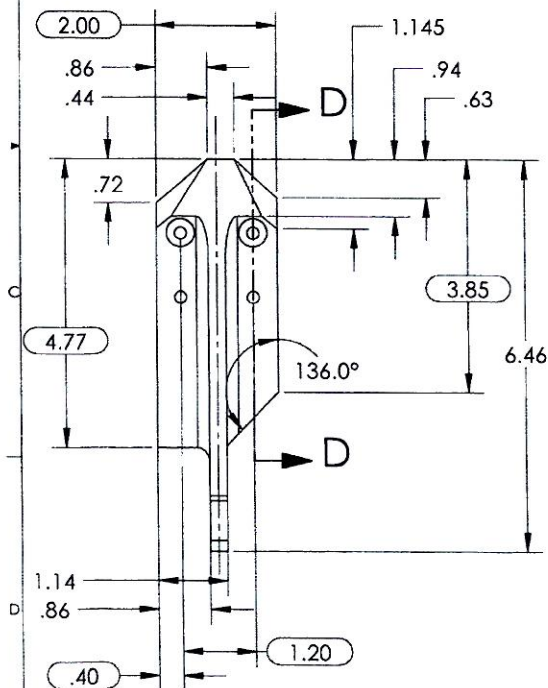
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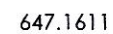
SECTION D-D



647.1610

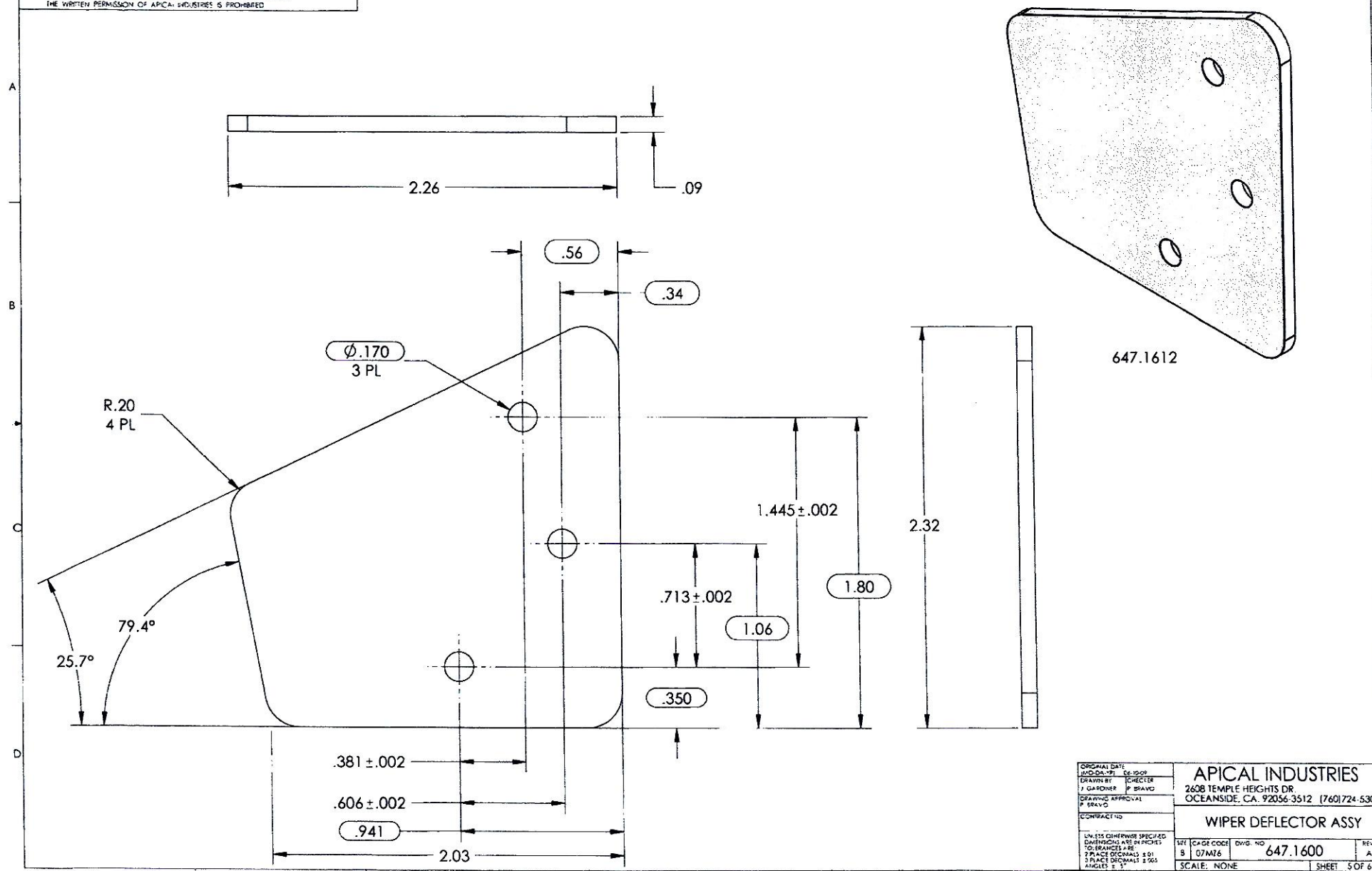


ORIGINAL DATE 1/20/84 10:15 AM		APICAL INDUSTRIES	
DRAWN BY: J. GARDNER		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: P. BRADY		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL		WIPER DEFLECTOR ASSY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 1 PLACE DECIMALS ± .005 ANGLES ± .5°		SCALE: NONE	SHEET 2 OF 6

[illegible]

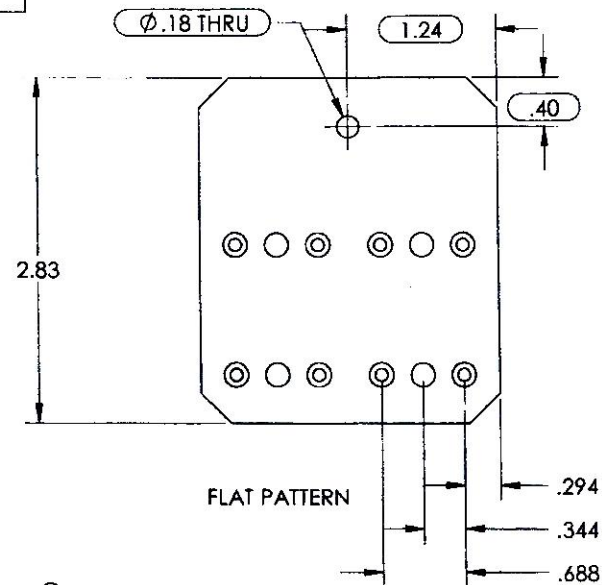
SPECIAL DATE RADIO 1-21 06-10-02 DRAWING BY T. FLETCHER 1- CATERPILLAR P. BRAVO DRAWING APPROVAL P. BRAVO CONTRACT # 110	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 1. FINISHES 2. PLACES DIMENSIONS ± .005 3. DECIMALS	WIPER DEFLECTOR ASSY QTY 1 REV A SCALE: NONE SHEET 3 OF 4

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
APICA INDUSTRIES ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICA INDUSTRIES IS PROHIBITED

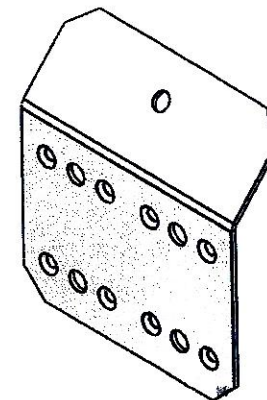
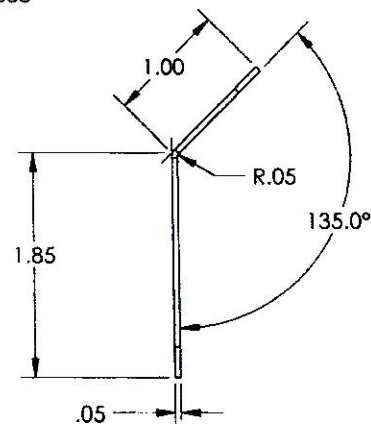
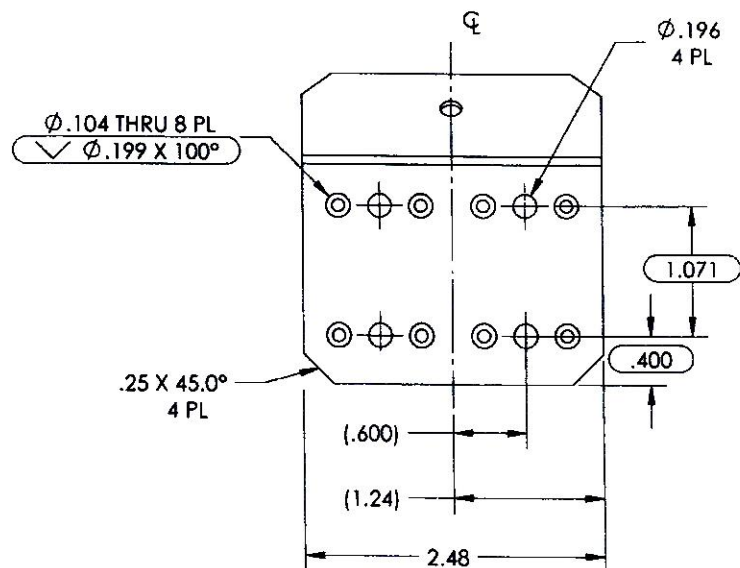


ORIGINAL DATE JWD-DA-171 06-15-07	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR OCEANSIDE, CA 92056-3512 (760) 724-5300		
DRAWN BY: J. WELCHER 3. GARDNER JP 05-04-07	WIPER DEFLECTOR ASSEMBLY		
DRAWING APPROVAL P. BRAYO	UNITS SHOWN: PERIPHERAL DIMENSIONS ARE IN INCHES DIMENSIONS ARE 2 PLACE DECIMALS ± 0.1 3 PLACE DECIMALS ± 0.05 ANGLES ± 1°		
CONTRACT NO.	SCALE: NONE	DATE: 07/16/07	REV. A
	SHEET 5 OF 6		

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FLAT PATTERN



647.1613

APICAL INDUSTRIES	
2608 TEMPLE HEIGHTS DR.	
OCEANSIDE, CA 92056-3512 (760)724-5300	
WIPER DEFLECTOR ASSY	
DATE: 07/20/06	REV: A
DRAWN BY: J. GARDNER	DESIGNED BY: P. BRAVO
CHECKED BY: P. BRAVO	APPROVED BY: P. BRAVO
UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	
FRACTIONS ARE 16	
3 PLACE DECIMALS ± .01	
ANGLES ± .5°	
1/28	07/20/06
8	07/20/06
SCALE: NONE	SHEET 2 OF 6



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO34684

Purchase Order Date 12/19/2016
PO Print Date 12/19/2016

Page Number 1 of 2

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

E-MAILED

DEC 19 2016

Contact Name

Vendor Phone

613-446-4544

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
153783		647.1611 WIPER REV. A	12/22/2016 Yes 12/22/2016		6.00	\$10.70	\$64.20
FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377J TYPE I CLASS N							
PART ARE RUSH PLEASE ADVISED DELIVERY							

Line Total: \$64.20

2	71401-45	ADMIN FEE	12/22/2016 Yes 12/22/2016		1.00 Each	\$150.00	\$150.00
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Line Total: \$150.00

Note:

12/19/2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912726

Date: 20-Dec-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
6 ea	Part: 647.1611 Wiper Hard Black Anodize per MIL-A-8625F Type III, Class 2 Prime per MIL-PRF-23377J, Type I, Class N (Customer Supplied) Job: 20502	Rev: A <i>Sdp6-12-21</i> Line: 1	<i>DAS 9</i>
1 ea	Part: ADMINISTRATION FEE ADMINISTRATION FEE Job: 20503	Rev: N/A Line: 2	PO: PO34684
DATE: <u>20/12/16</u>			
CERTIFIED SIGNATURE: <u><i>[Signature]</i></u>			
RECEIVER SIGNATURE: _____			
Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
CERTIFICATE OF CONFORMANCE			
A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.			
MADE IN CANADA.			